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ABSTRACT

Two theories about the effects of industrialization on an individual's attainment of social, educational, and occupational status are examined in this study of 12 Japanese regions in varying stages of development. The first, the theory of industrialism, suggests that as development occurs, the attainment of educational and occupational status through kinship ties (ascription) decreases and status is gained on the basis of individual achievement. The second theory, status maintenance, argues that when educational expansion surpasses occupational demand the advanced industrial state will resort to ascription (kinship ties, social background) to fill prestigious jobs. Although both theories agree that education becomes more universal with industrialization, they disagree on occupational and social status attainment. Research in the 12 Japanese regions used both the individual and the region itself as units of measurement and involved several stages of analysis. Final results disprove the industrialism theory; ascriptive processes do not diminish with industrialization. Inadequate occupational demand does, however, restrict the degree to which educational attainment becomes prestigious. (KC)

INDUSTRIALIZATION AND THE STATUS ATTAINMENT PROCESS: THE THESIS OF INDUSTRIALISM RECONSIDERED

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INDUSTRIALIZATION AND THE STATUS ATTAINMENT PROCESS: THE THESIS OF INDUSTRIALISM RECONSIDERED

ABSTRACT

Two positions are advanced regarding the effects of industrialization on status attainment parameters. The thesis of industrialism describes the emergence of universalistic social organization where ascribed status allocation is replaced by achieved processes. In contrast, the status maintenance thesis contends that diminishing educational inequality coupled with limited occupational upgrading results in a reduction of achieved components and a growth in ascribed contributions to social status. These conflicting positions are examined by estimating status attainment models within twelve Japanese regions varying widely in level of economic development. Results demonstrate considerable regional diversity in status attainment coefficients, such that estimation of a single national model involves serious misspecification. Moreover, the pattern of regional variation provides partial support for the status maintenance thesis, with occupational upgrading assuming a pivotal role for the development of meritocratic organization. Macro-level structural models of these relationships are presented.

1.0 INTRODUCTION

The underlying theme in recent critiques of the status attainment tradition involves the recognition that reward allocation occurs within a structural context. It is argued that the process of attainment cannot be analyzed independently of the structure of positions which individuals must occupy. Since the social organization of labor preexists individual placement within this structure, the form of organization will condition modes of allocation (White, 1970; Boudon, 1974; Sorenson, 1976; Burawoy, 1977; Horan, 1978; Hodson, 1980). Three implications derive from this critique. First, the human capital assumption that individual attributes determine occupational outcomes is rejected, since the structural context within which the individual is located affects the pricing of these attributes. Consequently, the meaning of educational aspirations and achievement for individual attainment depends upon the rules of reward allocation embedded within economic organization. Second, it is claimed that estimation of a national status attainment model involves serious misspecification since such a model conceals sectoral differences in the process of attainment (Wright and Perrone, 1977; Horan, Beck, and Tolbert, 1980). Third, it is asserted that parameter estimates in a national model are valid only under assumptions of constant occupational demand. Changes in the structure and strength of this demand will alter the size of causal paths. Thus the status attainment model does not capture invariant relations between variables, but rather those which are historically and contextually specific.

However, this interest in structural effects on attainment processes has been conceptualized in a limited manner, largely within dualist paradigms positing a dichotomous industrial configuration. Results from

this literature have been contradictory at best. Although Beck, Horan, and Tolbert (1978, 1980) report significant sectoral interactions, others have found little evidence of sectoral differences in the process of status attainment (Pfeffer and Ross, 1979; Hauser, 1980; Hodson, 1980). The purpose of this paper is to develop and test a more fruitful theoretical perspective with which to examine structural effects. Given the primary role of economic and technological variables in conditioning social organization, we consider regional level of industrialization as a prominent structural variable affecting status attainment parameters. In the following section, we describe how the level of regional industrialization affects the size of three parameters: the path between social background and respondent's education measuring "educational ascription", the path between social background and respondent's occupational prestige measuring "status ascription", and the path between respondent's education and occupational prestige measuring "status achievement". This paper not only attempts to demonstrate structural effects on these parameters, but also contributes to current debates concerning the direction of these effects. After outlining a traditional theoretical perspective positing a reduction in ascriptive processes with industrialization, we develop an alternative thesis which suggests a contradictory pattern of effects. The data analysis then provides a preliminary test of the opposing perspectives by estimating separate status attainment models within twelve Japanese regions varying widely in level of economic development.

The relationship between industrialization and attainment processes has been addressed with both temporal and cross-sectional studies. Research exploring trends in status attainment processes (Blau and Duncan, 1967; Featherman and Hauser, 1978) provides some insight into the effects of industrialization, assuming that such patterns derive from temporal changes

in developmental level. In addition, cross-sectional studies comparing status attainment parameters across nations varying in economic development have been attempted (Covello, 1976; Lin and Yauger, 1975), though they suffer from a paucity of data points or questionable methods (Hansen and Haller, 1977). While previous research focuses on national differences in status attainment, this paper introduces the regional labor market as an alternative level of analysis. The contention is that regional labor markets are characterized by differing processes of reward allocation, and that these processes are related to the developmental level of the region. These hypotheses are the subject of the following empirical analysis, but preliminary support for a regional design is provided by recent research demonstrating the operation of local labor markets (Parcel, 1981), and by research in location theory documenting considerable regional diversity in economic development (Needleman, 1968; Richardson, 1969; Ullman, 1964). It should be noted that a regional design reduces problems of occupational and educational comparability characteristic of cross-national studies, and effectively controls for cultural variables.[1]

2.0 THE THESIS OF INDUSTRIALISM: TOWARDS A MERITOCRATIC SOCIETY

We turn to a consideration of alternative theories on the consequences of industrialization for attainment processes. The thesis of industrialism suggests that economic development entails a transition from ascriptive bases of role allocation to more universalistic and achieved practices (Feldman and Moore, 1962; Levy, 1966). Drawing from the thesis of industrialism and related theories of social differentiation and mass

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1 Although these are distinctive advantages for a regional design, the problem of migration is more prominent for a regional level of analysis. The issue of interregional migration will be discussed briefly during the presentation of results.

society, we outline below the specific effects of industrialization on each of the three attainment parameters.

Social differentiation theory describes an evolutionary development in which major societal functions gain structural independence from the traditional kinship system, thus restricting the effect of kinship ties on economic role allocation (Parsons, 1961, 1968; Moore, 1963; Smelser, 1964). Within the nonindustrialized society, economic and familial roles are enmeshed in a single nexus, such that conditions of birth determine subsequent productive roles. Industrialization involves the breakdown of this economic-familial nexus, as the sphere of production becomes spatially and temporally isolated from the family. Rather than assuming an ascribed productive role within the household, the individual must attain a separate role within the factory or office. This division between familial and occupational spheres introduces the potential for mobility from social origins, and thus reduces the size of the status ascription parameter. Direct inheritance of an occupation is more difficult once economic roles are lodged in a separate sphere.

This separation of societal structures permits the emergence of universalist-achievement values within the differentiated economic sector. Freed from the particularistic and affective constraints of the household, the occupational sphere can develop rational orientations which maximize output. Bureaucratic firms recruit employees on the basis of efficiency norms rather than considering kinship ties or circumstances of social background. Since firms now eschew these particularistic criteria, fathers find it more difficult to pass on jobs to their sons or to arrange for similar jobs (Treiman, 1970). Thus occupational roles are not only dislodged from the family, but the growth of universalist values prevents intergenerational transmission of jobs within the separated occupational

sector. Again, this translates as a decrease in the status attainment parameter linking social background to respondent's occupational prestige.

In addition to the differentiation of economic and familial sectors and the subsequent emergence of universalist values, the growth of mass education with industrialization further reduces status inheritance. This meritocratic impact of education operates through two related processes. First, mandatory education extends to the masses the opportunity to develop occupationally relevant skills and training regardless of social background. As the locus of training shifts from the home to the school, access to skills becomes less dependent on circumstances of birth. Second, mass education resocializes students from diverse socioeconomic backgrounds to a single "achievement ethic" (Parsons, 1959), hence reducing class variation in occupational aspirations and outcomes. Thus schooling not only equalizes access to occupational skills, but also transmits the necessary value orientations so that individuals from all backgrounds are motivated to acquire these skills. This development of a common culture reducing class variations in occupational aspirations is further hastened by the homogenizing effects of mass media in the industrialized region.

Accompanying this decrease in social background effects on occupational outcomes is a parallel reduction in ascriptive determination of educational levels. The growth of free and universal schooling in the industrialized system lessens the role of family economic resources in securing education. In addition, the development of a common culture across socioeconomic classes reduces differential aspirations for education, and increases commonalities in educational abilities. Finally, the transition from agricultural to manufacturing occupations and the growth of child labor legislation equalizes school attendance by releasing poorer youth from farm and factory labor (Treiman, 1970).

The declining significance of ascriptive criteria is replaced by a strengthening of achieved contributions to occupational prestige. With the increase in highly skilled professional, technical, and administrative occupations, formal education becomes a more relevant criterion for employee recruitment. Access to high status jobs within this "upgraded" occupational structure becomes contingent upon educational qualifications which indicate acquisition of appropriate skills and value orientations. Organizations which persist in ascriptive "discrimination" despite the greater efficiency of recruitment decisions based on educational attainment are no longer competitive within the capitalist economy. In this sense market forces and the profit motive impel the transition towards role allocation by educational credentials.

Thus the thesis of industrialism suggests that a meritocratic society is approached with development. The ascriptive determination of educational and occupational status decreases, and achieved contributions to status increase. In the following section we develop an alternative thesis which questions this meritocratic projection.

3.0 THE STATUS MAINTENANCE THESIS: ASCRIPTIVE EXPANSION IN THE POST-INDUSTRIAL SYSTEM

The status maintenance thesis rejects the unilinear evolutionary perspective embedded in the thesis of industrialism, by specifying some of the dynamics accompanying post-industrialization which may increase ascribed contributions to social position. The intent is not to replace one unilinear scheme with another, but to identify processes omitted within the industrialism thesis which may limit the development of meritocratic organization. We argue that industrialization is associated with a

reduction in educational ascription and occupational upgrading, and that these processes restrict the growth of universalist patterns of attainment.

3.1 The Contradictory Effects of Declining Educational Ascription

There is no contention between status maintenance and industrialism theses regarding the declining significance of social background for educational attainment. Both radical theorists and conventional sociologists alike agree that the provision of mass educational opportunities coupled with rising educational aspirations have produced growing equality in educational levels with industrialization (Hauser and Featherman, 1976; Bowles and Gintis, 1976; Boudon, 1974). Although there is some indication of longitudinal stability or even increases in schooling differences between socioeconomic groups (Mare, 1981; Spady, 1967), the weight of evidence suggests a reduction in these ascriptive effects. Such findings conform to the socioeconomic equalization of education projected by the industrialism thesis.

However, this reduction in educational ascription may concurrently foster an increase in status ascription, a result directly contrary to thesis of industrialism projections. Since the socioeconomic elite no longer monopolize educational credentials, they must increasingly rely upon direct ascriptive mechanisms to maintain their status. Resources such as parental occupational contacts and wealth are used by the elite to gain prestigious jobs, in response to the burgeoning educational competition from the masses. The central point here is that the advantaged will not watch idly while their educational privileges erode; rather, they employ ascriptive resources if education no longer suffices as a means of status inheritance. Not only is a resurgence of ascriptive processes in the

interest of elite status maintenance, but employers also increasingly rely upon noneducational criteria for recruitment decisions. As education becomes a universal attainment, it also becomes a less adequate measure of potential productivity. The declining utility of educational attainment as an indicator of worker quality motivates employers to emphasize alternative criteria such as mannerisms or value orientations, prestige of the educational institution, and other more direct social background considerations. This growing emphasis on noneducational criteria, coupled with elite attempts to employ ascriptive resources to maintain their status, implies both diminished status achievement and increased status ascription. These conclusions are contrary to those generated by the industrialism thesis.

Thus the growing equality of educational attainment shifts the mechanism of status transmission from an indirect path mediated by education to more direct ascriptive processes. It should be emphasized that this shift in the process of status transmission does not imply any change in the strength of the correlation between social background and occupational status. This correlation derives from two components, the direct effect of social background on current status, and the indirect effect of social background mediated by educational attainment. The status maintenance thesis suggests that the former component increases with industrialization, while the latter diminishes. Since the two components of the correlation shift in opposite directions, the relationship between industrialization and the total correlation remains unspecified.

3.2 The Limits of Upgrading

We have described how the reduction in educational ascription fostered by industrialization operates to subsequently increase status ascription and diminish status achievement. The rate of occupational upgrading is an additional intervening variable which mediates the effect of industrialization on these attainment parameters. It was noted already that industrialization is accompanied by an increase in educational equality and a concomitant growth in mean levels of schooling. An emerging point of contention involves the extent to which the supply of high status occupations matches this expansion in the educational sector. While some have argued that the structure of positions is often manipulated to conform to the existing educational supply (Treiman, 1970, 1977; Hauser, 1976), others view the occupational distribution as determined by exogenous technological and organizational factors largely independent of the educational structure (Boudon, 1974; Pampel, et al., 1977). In fact, a growing literature supports the latter view in which occupational upgrading fails to grow at a rate commensurate with educational expansion. In their model of occupational change, Pampel et al. (1977) project a contraction in the rate of growth of high status jobs. Singelmann and Browning (1980) reach similar conclusions with a substantially different methodology. Primarily due to an expansion of the tertiary sector, the rate of prestige upgrading diminishes with post-industrialization.

What happens to levels of status achievement when the advanced industrial state fails to generate a sufficiently upgraded occupational structure? Coupled with the concomitant growth in educational levels, this restriction in occupational demand reduces prestige returns to education. Many who invest in higher education will fail to gain prestigious

occupations, simply because there are not enough for an overeducated population. Some indications of this process are evident in the models of Boudon (1974), and in the results of Featherman and Hauser (1978: 265-9). Again, we generate a conclusion for the status achievement parameter which conflicts directly with the thesis of industrialism.

Not only does the rate of upgrading affect the status achievement parameter, but it also influences the level of status ascription. During the early stages of industrialization when occupational expansion is strongest, prestigious jobs are so plentiful that ascriptive mechanisms are less important for occupational attainment. Parental contacts and other social background resources are not needed to secure desirable occupations if employers themselves are struggling to fill their expanding ranks. When occupational upgrading decelerates with advanced industrialization, the competition for the limited pool of prestigious jobs becomes sufficiently intense that ascriptive resources regain importance. High rates of occupational upgrading further reduce status ascription, since structural change forces intergenerational shifts out of occupations with diminishing demand. It should be reemphasized that these consequences of upgrading pertain to parameters governing the process of attainment, and not to the strength of the correlation between social background and occupational status.

Consideration of upgrading entails relaxing assumptions of constant occupational demand implicit in most status attainment literature. Influenced by the research of Sorenson (1976, 1977), we ask instead how parameters respond to changes in demand conditions. Our conclusions suggest that the deceleration in demand accompanying advanced industrialization operates to restrict status achievement and promote status ascription. This pivotal role for upgrading has been long recognized in occupational mobility

research, with the central statistical problem conceptualized as the separation of structurally induced movement from pure circulation mobility. Indeed, one of the major findings deriving from such research is that the shifting structure of occupational demand represents the primary determinant of changes in mobility patterns (Hauser, et al., 1975; Erikson et al., 1979). However, intergenerational mobility research is not an entirely appropriate method for addressing the effects of occupational upgrading on status inheritance, since marginals in a cross-classification table fail to represent actual shifts in occupational distributions (Duncan, 1968). Given this inherent nature of mobility tables, it becomes important to transfer the interest in occupational upgrading to a structural equation methodology.[2]

4.0 THE RESEARCH STRATEGY

The status maintenance thesis argues that decelerating rates of occupational upgrading coupled with reductions in educational ascription limit the development of meritocratic organization in the advanced industrial system. Thus the theses of industrialism and status maintenance predict largely opposed effects of economic development on attainment parameters. Although both state that ascriptive effects on levels of schooling decline, contradictory forecasts are developed for the two remaining parameters.

Japan was chosen for a preliminary test of these positions by examining attainment processes in twelve regions of varying economic development. A rapid rate of postwar economic growth, a changing occupational structure, and extensive regional variation in developmental level combine to make Japan an excellent research location (Tominaga, 1969; Cole and Tominaga,

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2 No hypotheses are advanced regarding the effects of upgrading on educational ascription.

1976; Shinohara, 1970). However, Japanese research on the determinants of occupational standing must be conducted within the context of a "lifetime employment system" in which occupational consciousness is displaced by loyalty to the firm (Abegglen, 1958; Vogel, 1963; Nakane, 1970; Dore, 1973). This dimension of Japanese society does not represent a serious problem for our research. Although occupation may not be a salient feature of Japanese consciousness, it nonetheless maintains broad validity as a proxy for social standing. Cole and Tominaga (1976) document that occupational position is highly correlated with measures of social standing such as educational attainment and income level. Not unlike Western nations, Japanese occupational roles occupy a central place within the stratification system, and thus are a proper focus for research concerning structural effects on intergenerational status transmission.

Of course, it is not clear if the Japanese pattern of developmental effects applies equally to other nations. Several institutions unique to Japan may preclude generalization. First, the prominence of internal labor markets and the dual economy within Japan might contribute to ascriptive processes by restricting intergenerational mobility across labor markets or segments of the economy. Second, Cole and Tominaga (1976) note a surprising growth in the self-employed sector of the Japanese economy, another feature which might promote ascription by allowing familial training and occupational inheritance. Third, the seniority principle embedded in the lifetime employment system may function to reduce prestige returns to education, since age and length of service become primary considerations for occupational placement within the firm. Conversely, it might be argued that educational effects should be quite strong, because Japanese firms explicitly limit ports of entry to graduates from the appropriate schools. Not only do these specific Japanese institutions potentially limit the

generalization of results to other nations, but they also provide alternative explanations of regional variation in attainment processes within Japan. To the extent that such institutions operate primarily within industrialized regions, they may account for any observed differences in attainment across regional developmental levels.

However, it is interesting to note that several of these supposedly unique institutions of Japan are currently being discovered in other industrialized nations (Cole, 1979). The applicability of dual economy and segmented labor market paradigms to the United States and other Western nations is well documented, while others have traced the role of age or seniority for prestige and wage determination (Spilerman, 1977; Rees and Schultz, 1970). The implication that there are important parallels between Japanese and Western development receives further support from comparative studies of status attainment, which show a striking similarity of processes between the United States and Japan (Tominaga, 1980). Although we do not espouse a convergence thesis, it nonetheless appears that Japanese research can provide some insight into the consequences of industrialization.

Table 1 shows the twelve Japanese regions within which separate status attainment models are estimated. This twelve region division was developed from ten original regions by dividing both the 'Kyushu' and 'Kanto' areas into two sections, due to considerable heterogeneity in economic level within the original regions. As Table 1 indicates, a broad range of industrial development is gained with this regional division of Japan.

Table 1 About Here

5.0 METHODS AND RESULTS

The empirical investigation includes two stages of analysis. The first stage involves the estimation of status attainment models within each of twelve Japanese regions. In the second stage, the coefficients obtained in these models are correlated with regional level of development and other structural variables. We also develop formal causal models depicting the relationship between regional structural attributes and attainment processes. It should be noted that this latter stage entails a shift in the unit of analysis from the individual to the region.

5.1 Estimation of Regional Status Attainment Models

Data for the first stage of analysis were available from the 1975 Survey of Social Stratification and Social Mobility (SSM), a multi-stage probability sample of 2724 Japanese males between the ages of twenty and sixty-nine. In addition to several social psychological measures, this survey provides a close replication of the variables in the "basic model" of status attainment (Blau and Duncan, 1967). The SSM also provides data on the prestige ranking of Japanese occupations. Five variables were selected to measure the social background of respondents: father's educational attainment, father's occupational prestige, farm origin, family economic level, and mother's educational attainment. Father's and mother's education are coded as years of schooling completed, ranging from '0' to '16'. Father's occupational prestige is coded in the Japanese Occupational Prestige Scale developed from the same 1975 SSM.[3] Farm origin is a binary variable assigned '0' if the father's occupation was farming when the

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3 The correlation between this scale and the Standard International Occupational Prestige Scale (Treiman, 1977) is approximately 0.87.

respondent was fifteen years old, and coded as '1' otherwise. Finally, family economic level is the respondent's description of his family's economic status, coded as '1' (very poor), '2' (fairly poor), '3' (average), '4' (fairly rich), or '5' (very rich). Since it has been argued that status attainment models have failed to adequately capture the full effect of social background on subsequent attainment (Bowles, 1972; Burawoy, 1977), it is important to incorporate this wide range of background variables. Two indicators of the respondent's social position were included: respondent's educational attainment and respondent's current occupational prestige. Both of these were measured in a manner identical to the comparable parental variables. The means, standard deviations, and correlations of these variables within each of the twelve regions are presented in Appendix 1.[4]

A diagram of the model estimated in each region is shown in Figure 1. The path diagram represents the following system of equations:

$$\eta_1 = \gamma_1\xi_1 + \gamma_2\xi_2 + \gamma_3\xi_3 + \gamma_4\xi_4 + \gamma_5\xi_5$$

$$\eta_2 = \beta_1\eta_1 + \zeta_2$$

$$\eta_3 = \beta_2\eta_1 + \beta_3\eta_2 + \zeta_3$$

The basic feature of this model is the social background construct (η_1) formed as a linear composite of the five social background variables. By forming such a construct, the size of the β_1 parameter becomes a measure of ascriptive effects on educational attainment, and the size of β_2 measures ascriptive contributions to current occupational prestige. Although a disaggregated model without an intervening construct could be estimated, there is not sufficient data to gain precise estimates of the independent

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4 These correlation matrices and all subsequent results are produced using listwise deletion of missing data, yielding a final sample of 2077 males. Those parts of the analysis replicated with pairwise present data produced similar findings.

effects of each of the five variables. Moreover, the theoretic concern is with regional variation in the relative contribution of social background in total, not with the disaggregated effects of its various components. Thus we propose a model with a single construct as a more parsimonious representation of the process of status transmission.

Figure 1 About Here

The introduction of this construct imposes "constraints of proportionality" on the effects of the social background variables (Hauser, 1972). Each of the five variables is constrained to exert effects on the current status variables (respondent's education and occupation) in the same proportion, namely β_1 / β_2. These constraints hold because the effects of the social background variables are mediated entirely by the construct. To allow a direct path between a social background variable and a current status variable would permit the model to absorb any deviation from constraints of proportionality. It should be clear that there is nothing unusual about such constraints. Indeed, the common practice of creating a weighted composite of social background, and then entering the composite alone in subsequent model estimation, makes similar assumptions about proportional effects of the components of the composite (e.g., Sewell, Haller, and Ohlendorf, 1970). The model we propose differs only by uniting composite construction and model estimation so that weights are chosen to best reproduce effects of the components. Moreover, such a strategy allows an explicit test of the significance of deviations from proportionality.

This model also differs from those which consider measures of social background to be simple reflections or effects of a latent construct (e.g., Hauser, 1970). Although the reflective model has become quite popular following the recent advances in factor analysis, it contradicts the more

plausible structure in which the social background variables cause or give rise to an overall social position (Hauser, 1972). The conceptual imagery associated with a reflective model implies that each family is endowed with a general social position which generates familial education, occupation, and income. Such imagery reifies social position into an active determinant of a variety of stratification outcomes, and denies a causal structure among these outcomes consistent with the causal interpretation given to the son's achievements. To avoid such conceptual errors, we have chosen a model which represents overall social background as an effect rather than cause of its multiple components.

Several assumptions are required to identify the model. First, the unobserved construct is considered an exact linear composite without a residual or disturbance term. A stochastic disturbance could be introduced, but only with the simultaneous assumption that the path between respondent's education and occupation equals zero (or any constant). Such a formulation has been suggested in the MIMIC model literature (e.g., Joreskog and Goldberger, 1975; Hauser and Goldberger, 1971), yet is clearly inappropriate in this circumstance. In addition, γ_3 is set equal to unity to fix the measurement scale of the composite variable. This normalization rule has no effect upon the relative sizes of the structural coefficients. With these restrictions the model is estimable, with four degrees of freedom deriving from the proportionality constraints.

This baseline model and a series of related models were estimated by maximum likelihood with the assumption of multivariate normality; brief descriptions and goodness of fit statistics are provided in Table 2. Each of the models presented in this table involves simultaneous estimation of parameters in all twelve regions. This allows cross-region equality constraints to be imposed in some of the later models. The baseline model A

represents the hypothesis of regional variation in attainment processes. Not only are the structural coefficients expressing levels of ascription and achievement (β_1 , β_2 , β_3) allowed to differ across regions, but variation is also permitted in the size of the social background paths (γ_1 , γ_2 , γ_3 , γ_4 , γ_5). Model B is a modification of model A gained by placing regional equality constraints on the level of educational ascription (β_1), status ascription (β_2), and status achievement (β_3). If this model fits, the implication is that the extent of ascribed and achieved processes does not vary by region. However, Table 2 reveals that the contrast between models A and B is significant at the .04 level, supporting the contention of regional differences in attainment parameters. Whether this variation is related to industrialization is explored later, yet it is established that estimation of a single national model would conceal significant differences in the process of status attainment.

Table 2 About Here

The remainder of the contrasts with model A assess which of the three attainment parameters contribute most to regional variability. Successive equality constraints are imposed on each of the single parameters, while the remaining two parameters are allowed to vary across regions. Results from this series of tests show that the level of regional variation is comparable for the three paths, yet none of the contrasts with model A are significant at the .05 level. Although the hypothesis of regional equality was rejected in the global test, it cannot be rejected in these contrasts for the single paths. Such results do not violate the logic of hypothesis testing, as simultaneous confidence regions are not the simple intersection of the associated single parameter regions. Constraints on a single parameter fail to capture the variability revealed in global tests, because they allow

regional variation to be absorbed in the remaining unconstrained parameters.

Model F is an alternative baseline model, gained by placing regional equality constraints on the weights for the social background composite. In some respects, it is preferable that the social background variable be the same linear composite in all regions. Otherwise, the analysis of regional differences in effects of the background variable may be confounded by regional differences in its composition. For this reason model F is retained as an additional baseline model, even though its contrast with model A indicates significant variability in composite weights. The remaining models are modifications of model F which set regional equality constraints on the coefficients measuring ascriptive and achieved processes. Results parallel those with baseline model A. The following section will analyze coefficients from both baseline models; it will be shown that they imply somewhat different substantive conclusions regarding structural effects on attainment processes.[5]

Coefficients from these models will be considered in their metric form. To standardize within each region would confound a comparison of structural coefficients with regional variation in standard deviations. Hence metric coefficients are the most appropriate for the expression of causal laws across populations (Blalock, 1967; Duncan, 1975). Appendix 2 provides the estimated structural parameters within twelve regions, for both of the baseline models.

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5 Other baseline models were also considered, but are not presented here. In one model, we relaxed the proportionality constraints by fitting a lagged path between father's and son's occupational prestige. The model yielded similar conclusions on the extent of regional variability in status attainment, and on the relationship between this variability and industrialization. However, parameter estimates were considerably less precise, due to collinearity between the social background composite and father's prestige.

5.2 Structural Variables and the Status Attainment Process

The previous section was concerned with developing plausible status attainment models within twelve Japanese regions. It was suggested that significant variation exists in the process of status attainment, yet it remains to be established if this variation is associated with regional industrialization. We consider first the operationalization of the structural variables hypothesized to affect attainment parameters.

Regional industrialization was measured by per capita electricity consumption in 1955, and by the proportion of the labor force employed in agriculture in 1955. Since the majority of the respondents entered the labor force in the 1950s, the year of measurement was chosen to be 1955 on the assumption that structural effects on labor market experiences are greatest at initial entry. Some of the later analysis also employs 1960 electricity consumption as an additional indicator. The electricity consumption indices were chosen since production capabilities of industrial society are dependent upon the prior generation of electricity. Moreover, electricity consumption is strongly correlated with other traditional measures of industrial development (Frisbie and Clarke, 1979; Darmstadter, 1971; Cutright, 1968; Gibbs and Martin, 1972). The agricultural labor force index provides a closer assessment of the occupational structure patterns associated with development. Both cross-sectional and longitudinal data establish that industrialization entails a substantial reduction in the proportion of the labor force directly engaged in agriculture (Kuznets, 1971).

Occupational upgrading was measured by the 1960-1975 increase in mean occupational status for each region. Estimates of 1960 mean status were gained by assigning the 1975 prestige scores to the intermediate

occupational distributions in the 1960 Japanese Census, while 1975 estimates were developed by assigning the same prestige codes to regional occupational distributions in the 1975 SSM.

We have also conceptualized educational ascription as an additional regional structural variable which affects levels of status ascription and achievement. Since the status attainment models already estimated include coefficients measuring the level of educational ascription ($\hat{\beta}_1$), there is no need to gain an additional indicator of this variable. Thus educational ascription is both an estimated parameter in our attainment models, and a contextual variable which affects the size of the remaining parameters.[6] This dual role entails some potential problems in the interpretation of the observed regional correlation between educational and status ascription. Because our measures of these variables are estimates rather than population parameters, they are subject to both error variance and positive correlation over repeated sampling. The latter property of these estimators is particularly disturbing, since it introduces an artifactual positive covariance between measures of educational and status ascription which obscures the negative relationship posited by the status maintenance thesis for true scores. Estimates of status ascription and achievement are similarly correlated, again confounding interpretation of observed moments between measures of these variables. A model which corrects for this correlation between estimates is discussed in the following presentation of results.

Correlations between structural variables and levels of ascription and achievement are provided in Table 3, one set for each of the baseline models. Because the number of respondents within each region varied from 54 to 329, the correlations displayed are weighted by regional sample size. In a subsequent section we will present multiple indicator models of the

effects of industrialization on ascription and achievement, yet the main conclusions are evident from the correlations themselves:

(a) Educational ascription decreases moderately with industrialization. However, this relationship holds for only three of the four relevant correlations, and even these three are considerably weaker than expected. It should be noted that an outlier reduces the strength of this relationship.

(b) Status ascription increases with industrialization, for both baseline models and both indices. The relationship is stronger when industrialization is measured by electricity consumption rather that labor force composition.

(c) The level of status achievement diminishes with industrialization for all four of the relevant correlations, although the relationship is again stronger with the electricity consumption indicator.[6]

Table 3 About Here

Other than the moderate reduction in educational ascription with development, these results contradict thesis of industrialism conclusions and provide preliminary support for the alternative interpretations offered by the status maintenance thesis. However, the latter thesis not only predicts the direction of developmental effects on parameters, but also suggests that a reduction in upgrading rates and educational ascription are the mediating processes which produce these effects. Evidence on the relationship between these additional structural variables and attainment parameters is provided in Table 3. As predicted by the status maintenance

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6 Additional correlations were also examined, but are not presented here. Correlations weighted by the inverse of the estimated variances of the coefficients are nearly identical to those in Table 3, while unweighted correlations tend to be slightly weaker.

thesis, upgrading is positively related to status achievement and negatively related to status ascription. However, conclusions on the effects of educational ascription are less clear. Although model F correlations support status maintenance predictions, model A yields directly contrary results. However, we can equivocate on the conclusiveness of these correlations with educational ascription, since they are confounded by an artifactual covariance between estimates. The final piece of evidence on the status maintenance thesis regards the relationship between industrialization and the two mediating variables; the thesis states that rates of upgrading and levels of educational ascription should decline with development. The results of Table 3 have already shown that industrialization has a moderately negative association with educational ascription. Moreover, rates of upgrading also diminish with industrialization, when the electricity consumption index is considered ($r = -.435$).[7] However, there is essentially no relationship between upgrading and the agricultural labor force index ($r = .062$).

We consider briefly the implications of these observed correlations for structural models of the relationship between industrialization and attainment parameters. Because of the small sample size at this secondary stage of analysis, these models should be regarded as strictly preliminary. Figure 2 diagrams two models, both estimated with coefficients from baseline model F. The first model specifies direct effects of industrialization on the three attainment parameters. Despite the small sample, two of these effects are significant at the .10 level, and the direction of all three coefficients conform to status maintenance predictions. The second model

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7 This negative relationship may be partially artifactual, since the upgrading index as a gain score will tend to be negatively related to the initial score on the variable (Bohrnstedt, 1969).

incorporates the mediating variables considered by the status maintenance thesis, and also corrects for artifactual covariance between the estimates.[8] Rather than assuming perfect measurement of attainment parameters, this model explicitly distinguishes between the observed estimates from model F ($\hat{\beta}_1$, $\hat{\beta}_2$, $\hat{\beta}_3$), and the true parameters corresponding to exact measurement of the entire population in each region. By using estimates of the variances and covariances for $\hat{\beta}_1$, $\hat{\beta}_2$, and $\hat{\beta}_3$, we are able to identify a measurement model with correlated error terms, despite our single indicator representation of latent variables. The path between the observed and latent variables is fixed at unity, since the maximum likelihood estimates from model F are unbiased. Error variances for $\hat{\beta}_1$, $\hat{\beta}_2$, and $\hat{\beta}_3$ are fixed at estimates of their sampling variances obtained from the inverted information matrix generated under a model that assumes each of the attainment parameters (β_1 , β_2 , β_3) is constant across regions.[9] Finally, correlated errors are fixed at the estimates of covariance between $\hat{\beta}_1$, $\hat{\beta}_2$, and $\hat{\beta}_3$ also obtained from the inverted information matrix under the same model. By correcting for artifactual covariance in this manner, the effect of educational ascription on status parameters becomes quite strong. The remaining parameter estimates also conform to status maintenance

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8 We were unable to gain credible parameter estimates for this model when the agricultural labor force index was treated as an indicator of industrialization. Standardized coefficients were consistently and implausibly larger than unity for several paths. Hence this indicator was replaced by a new index, 1960 per capita electricity consumption. Needless to say, we cannot justify this ad hoc substitution of variables. This model serves the heuristic purpose of illustrating the causal sequence implied by the status maintenance thesis, and demonstrates the consequences of correcting for artifactual covariance between the estimates.

9 Since model F parameters are allowed to vary across regions, each regional estimate of a given parameter has a different standard error. Rather than treat this heteroscedasticity seriously, we gain single estimates of the error variance by constraining each parameter to be constant across regions.

predictions, aside from the small positive effect of upgrading on status ascription.

Figure 2 About Here

Since the preceding models and correlations are based on only twelve regions, conclusions are necessarily tentative. The status maintenance thesis correctly identifies the pivotal role of occupational upgrading and accurately predicts developmental effects, but there are also important respects in which the thesis fails to adequately explain the data. In several cases, the exclusion of selected regions from the analysis diminishes correlations considerably. This may not be inconsistent with status maintenance interpretations, but it suggests that more specific regional properties might account for variation in attainment processes. In addition, there is evidence that upgrading and educational ascription do not fully mediate the effects of industrialization on attainment parameters. Unreported results from model II indicate that direct paths are needed from industrialization to status ascription and achievement, primarily because industrialization is only weakly associated with educational ascription. This implies that developmental effects on attainment are not completely explained by the intervening variables of the status maintenance thesis. Finally, we have equivocated on the relationship between educational ascription and the other attainment parameters since alternative baseline models yield contrary results. This might derive from artifactual covariance between estimates, but clearer conclusions depend on further research. In summary, the pattern of developmental effects contradicts thesis of industrialism predictions, yet support for the alternative status maintenance thesis is incomplete.

6.0 A PARTIAL REANALYSIS

The preceding results demonstrate structural effects by explicitly modelling the association between structural variables and attainment parameters at the regional level of analysis. Although there is an intuitive appeal to this strategy, we close the paper with a more conventional methodology involving least squares estimation with multiplicative terms. This approach assigns to each respondent the structural attributes of the region in which he resides, and then forms interaction vectors equal to the product of the structural and social background variables. The size of the least squares coefficients for these multiplicative terms in equations predicting education or status indicates the extent to which returns to background vary with the structural attributes of regions. Analogous multiplicative terms are also formed to assess interaction effects between structural variables and education.

The foremost advantage of the methods employed earlier was the representation of constructs by multiple indicators. To avoid relying upon single indicator measures of social background and industrialization in the present approach, we develop composite variables using the weights generated in the preceding models. Thus social background (SOCBACK) is represented by a weighted composite of the five social background variables, with the weights identical to those of model F. Similarly, regional industrialization scores are formed as a weighted composite of the 1955 electricity consumption and agricultural labor force indicators, with the weights obtained from a model similar to model I.[10] The original

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10 Since Model I is a reflective model, weights are set equal to the coefficients obtained when the construct is regressed on the two industrialization indicators.

regional scores on upgrading are retained, since only a single indicator was used for this variable. Finally, respondents are assigned the industrialization and upgrading scores of their region, forming the variables INDUST and UPGRAD.

Table 4 presents the least squares coefficients for a model that enters interaction effects between industrialization and social background in the equation predicting educational attainment. Inspection of the multiplicative term reveals that returns to social background are essentially invariant across developmental levels. Although not presented, similar findings obtain when INDUST is replaced by eleven regional dummies, so that mean differences in regional educational levels are completely absorbed. Thus least squares estimates do not replicate the results presented earlier, which showed a moderate reduction in background effects with industrialization. This reinforces the contention that educational ascription is not sufficiently associated with industrialization to account for its effects on status ascription and achievement.

Table 4 About Here

The models presented in Table 5 assess interactive effects in the determination of occupational prestige. Model 1 examines whether prestige returns to schooling and background vary as a function of industrialization; model 2 assesses if returns vary with upgrading; and model 3 enters interaction terms for both industrialization and upgrading. Results from all three models corroborate status maintenance predictions, except for an insignificant reversal in the multiplicative effects of upgrading and background in model 3. Model 3 also shows that the interaction effects with industrialization are not fully mediated by those with upgrading, since coefficients on the multiplicative terms with industrialization remain quite

large. When dummies are entered to absorb regional differences in mean prestige, similar conclusions again hold.[11]

Table 5 About Here

Although many of the interaction effects in Models 1 thru 3 are quite strong, only three of the eight coefficients are significant at the .05 level. Strong collinearity between the multiplicative terms restricted the precision of estimates of their independent effects. This inflation of standard errors means that our conclusions must be guarded. Nonetheless, aside from the results of Table 4, this brief reanalysis provides additional evidence for status maintenance predictions.[12]

7.0 CONCLUSIONS

A number of alternative specifications have been employed to avoid reaching substantive conclusions that are dependent upon methodological choices. Using both maximum likelihood and least squares estimation, results reveal patterned regional variation in status attainment coefficients, such that assumptions of a single national model involve serious misspecification. Neoclassical paradigms of an homogenous and fully

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11 A complete test of the status maintenance thesis is not possible, since the interaction effects of educational ascription are not considered. This variable was omitted because its effects cannot be captured within the multiplicative approach, short of simply assigning estimates of regional educational ascription to individuals. Models estimated in this manner support status maintenance predictions, although none of the coefficients for educational ascription were significant at the .05 level.

12 Additional models were considered, but are not presented here. The preceding equations were reestimated for the subsample of respondents who did not migrate from their region of origin (79.5 percent of the original sample). Parameter estimates for interaction effects were quite similar for these nonmigrants, suggesting that a regional level of analysis is not invalidated by migration between regions. Similar estimates were also gained when the analysis was restricted to respondents of nonfarm origin or current nonfarm status.

competitive market must be qualified by a recognition that the process of role allocation differs by regional location. These results suggest that labor markets operate on a local level even within a highly industrialized nation. In addition, such findings question assumptions of regional convergence with national development, yet without data on temporal patterns in the extent of variation the results remain inconclusive on this issue.

Recent attempts to expand upon individualistic perspectives on processes of status attainment are also supported. Status returns to individual human capital are conditioned by the structural context within which the individual is located. Extraindividual regional constraints determine the rules of reward allocation, and thus the market returns for personal attributes. Two individuals with the same human capital might nonetheless gain different outcomes, simply because they occupy structural locations with different rules of allocation. This implies that inequality of outcomes is generated not only by unequal human capital, but also by systematic differences in the conversion of this capital into status outcomes. Hence the essential insights of the structuralist critique are elaborated to apply beyond issues of a dualist paradigm.

Not only are these structural effects indicated, but their pattern fails to confirm thesis of industrialism hypotheses. Disconfirmation of this thesis is perhaps the strongest finding of the paper. Achieved effects on status outcomes do not increase with industrialization, and ascriptive processes do not diminish. Indeed, there is evidence that precisely the opposite patterns prevail. This ascriptive expansion suggests potential difficulties in the meritocratic legitimation of inequality once it is perceived that unequal rewards are no longer clearly linked to achieved educational levels.

The alternative status maintenance thesis receives partial support. In addition to correctly specifying the direction of developmental effects on attainment parameters, this thesis identifies additional structural variables that influence levels of status achievement and ascription. The rate of upgrading emerges as a particularly decisive determinant of status achievement, since inadequate occupational demand restricts prestige returns to education. While others have similarly documented demand effects on prestige returns (Freeman, 1976), our results show that occupational upgrading also has a moderate impact on levels of status ascription. Resources dependent on social background gain importance as a means of maintaining status when the pool of prestigious occupations fails to expand rapidly. Thus the development of meritocratic organization is apparently threatened by the failure of advanced industrialization to maintain a continuous status expansion. However, results are less clear for the second structural variable identified by the status maintenance thesis. We have argued that growing educational equality forces the elite to rely upon direct ascriptive processes to maintain their status, and motivates employers to consider noneducational criteria since schooling becomes a less adequate indicator of potential productivity. Correlations between estimates from baseline models yield little support for this position, although artifactual covariance may have obscured the true relationship. These results, coupled with additional disconfirming evidence noted earlier, suggest that the status maintenance thesis provides only a partial explanation of developmental effects. Alternative structural variables, such as rate of migration and degree of inequality, might be incorporated to fully account for regional variation in attainment processes.

There are further caveats which qualify the results presented here. We have emphasized interpretations intrinsic to industrialization, yet the findings may be specific to Japan. The seniority considerations and lifetime employment system embedded in Japanese industry may reduce educational effects in developed regions, or the prevalence of internal labor markets within industrialized regions may increase ascriptive processes. Moreover, the restricted regional variation in educational ascription may be a consequence of the centralization of Japanese education. Even if the findings are not specific to Japan, they may be dependent upon a regional level of analysis rather than replicable across different and higher levels. Similarly, our cross-sectional results may not provide a legitimate basis for longitudinal inferences, since the latter rest on the presumption that highly industrialized regions approximate the structural arrangements towards which less developed regions are advancing. Finally, Japanese regions may not incorporate a sufficient range of developmental levels to detect a nonlinear relationship between industrialization and ascriptive criteria. It is possible that the processes described in the thesis of industrialism operate during the early stages of development, yet are not sustained with advanced industrialization as educational expansion outpaces occupational upgrading.

Although questions remain unanswered, we hope to have opened one mode of inquiry into issues of this nature. Status attainment research need not be atheoretical. On the contrary, it provides important evidence on the relationship between forms of social organization and processes of reward allocation.

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TABLE 1
INDUSTRIALIZATION LEVEL OF
TWELVE JAPANESE REGIONS

Region	Industrialization Level	
	Proportion Nonagricultural Labor Force	Per Capita Electricity Consumption [1]
Shikoku	.536	365
Hokuriku	.521	870
Tosan	.511	256
Kinki	.780	507
Chugoku	.564	306
Tokai	.683	579
Tohoku	.445	323
Hokkaido	.660	276
Kyushu-I [2]	.673	518
Kyushu-II [3]	.434	127
Kanto-I [4]	.479	193
Kanto-II [5]	.938	525

[1] Kilowatts
[2] Prefectures Fukuoka, Saga, Nagasaki
[3] Prefectures Kumamoto, Oita, Miyazaki, Kagoshima
[4] Prefectures Ibaraki, Tochigi, Gumma, Saitama, Chiba
[5] Prefectures Tokyo, Kanagawa

TABLE 2
MODELS OF REGIONAL STATUS ATTAINMENT

Model	Description	L^2	df	α
A	Baseline Model	89.79	48	
B	β_1 , β_2, β_3 Equal Across Regions	138.67	81	
C	β_1 Equal Across Regions	101.03	59	
D	β_2 Equal Across Regions	101.72	59	
E	β_3 Equal Across Regions	104.12	59	
A vs. B		48.88	33	.04
A vs. C		11.24	11	.42
A vs. D		11.93	11	.37
A vs. E		14.32	11	.22
F	Baseline Model, Constrained Weights	154.92	92	
G	β_1 , β_2, β_3 Equal Across Regions	201.18	125	
H	β_1 Equal Across Regions	171.63	103	
I	β_2 Equal Across Regions	170.46	103	
J	β_3 Equal Across Regions	167.16	103	
F vs. A		65.13	44	.03
F vs. G		46.26	33	.06
F vs. H		16.70	11	.12
F vs. I		15.54	11	.17
F vs. J		12.24	11	.35

TABLE 3
CORRELATIONS BETWEEN REGIONAL STATUS ATTAINMENT COEFFICIENTS AND REGIONAL STRUCTURAL VARIABLES

Model A Coefficients	Structural Variables: Electricity Consumption	Agricultural Labor Force	Occupational Upgrading	Educational Ascription
Educational Ascription	-.152	-.089	-.177	1.00[a]
Status Ascription	.575**	.277	-.500*	.179[a]
Status Achievement	-.528*	-.217	.646**	-.145[a]
Model F Coefficients				
Educational Ascription	-.200	.215	.302	1.00[b]
Status Ascription	.678**	.392	-.296	-.355[b]
Status Achievement	-.554*	-.225	.702*	.280[b]

**Significant at the .05 level (two-tailed)
*Significant at the .10 level (two-tailed)
[a] Educational ascription measured by model A coefficients
[b] Educational ascription measured by model F coefficients

TABLE 4
LEAST SQUARES COEFFICIENTS FOR AN EDUCATIONAL ATTAINMENT MODEL WITH A MULTIPLICATIVE TERM BETWEEN INDUSTRIALIZATION AND SOCIAL BACKGROUND

CONSTANT	4.2571
INDUST	.0003 (.0013) [.0189]
SOCBACK	.5777* (.0469) [.5914]
INDUST * SOCBACK	.0000 (.0001) [.0127]
R^2	.359

Entries are metric, (standard error), [standardized]
* Significant at the .05 level (two-tailed)

TABLE 5
LEAST SQUARES COEFFICIENTS FOR OCCUPATIONAL PRESTIGE MODELS WITH MULTIPLICATIVE TERMS BETWEEN STRUCTURAL VARIABLES AND DETERMINANTS OF PRESTIGE

Variable	Model 1	Model 2	Model 3
CONSTANT	27.53	27.16	32.33
INDUST	-.0076 (.0062) [-.1237]		-.0097 (.0066) [-.1588]
UPGRAD		-1.0069 (1.0901) [-.0889]	-1.5852 (1.1651) [-.1399]
SOCBACK	.0727 (.2490) [.0192]	.7656* (.2454) [.2019]	.0396 (.4272) [.0104]
EDUC	1.5521* (.2559) [.3998]	.6511* (.2601) [.1677]	.9552* (.4451) [.2461]
INDUST* SOCBACK	.0013* (.0006) [.2857]		.0013* (.0006) [.2889]
INDUST* EDUC	-.0008 (.0006) [-.1754]		-.0005 (.0006) [-.1076]
UPGRAD* SOCBACK		-.0802 (.1018) [-.0986]	.0097 (.1110) [.0119]
UPGRAD* EDUC		.2399* (.1069) [.2855]	.1965 (.1165) [.2339]
R^2	.183	.186	.188

Entries are metric, (standard error), [standardized]
*Significant at the .05 level (two-tailed)

FIGURE 1
REGIONAL STATUS ATTAINMENT MODEL

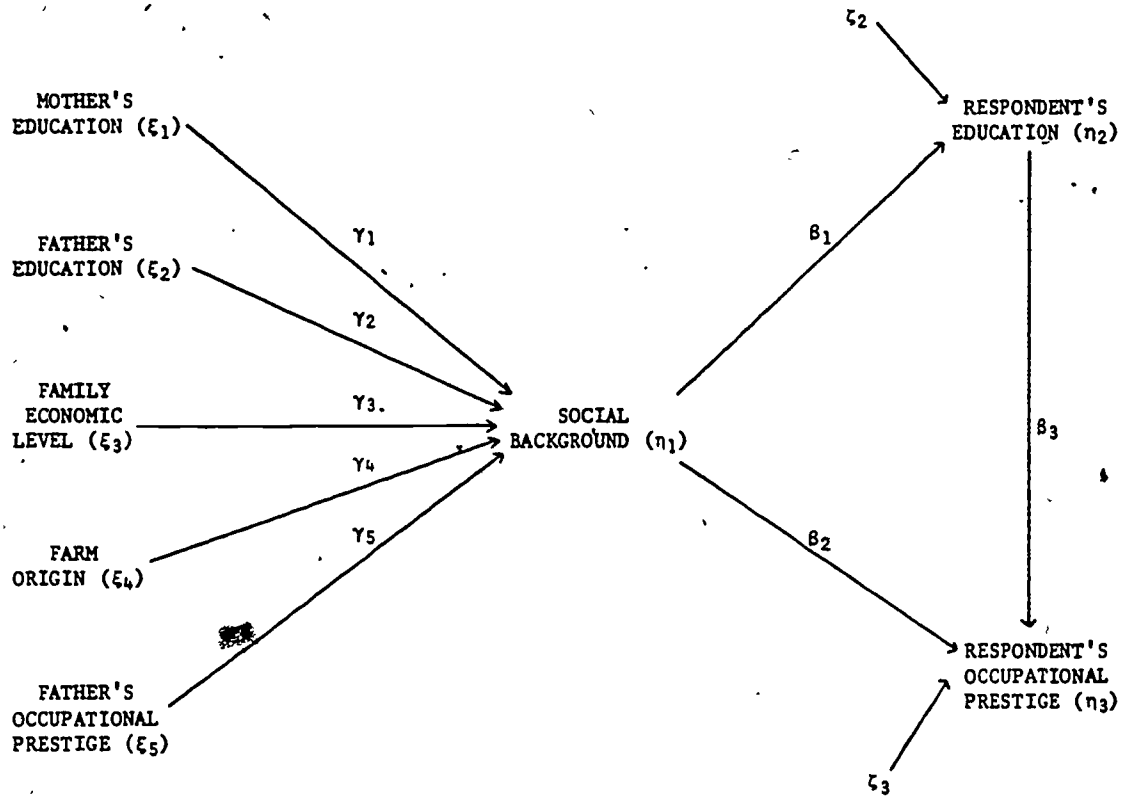
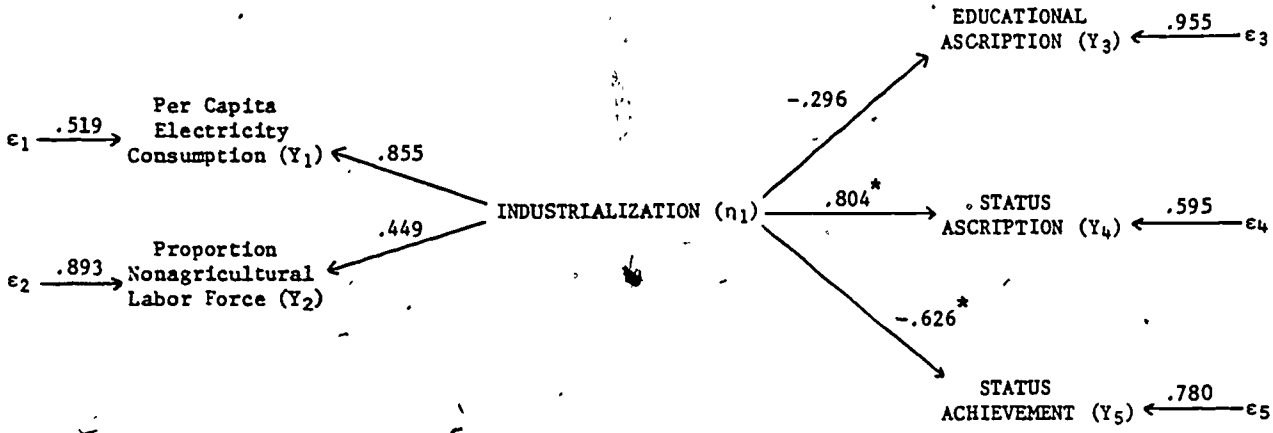
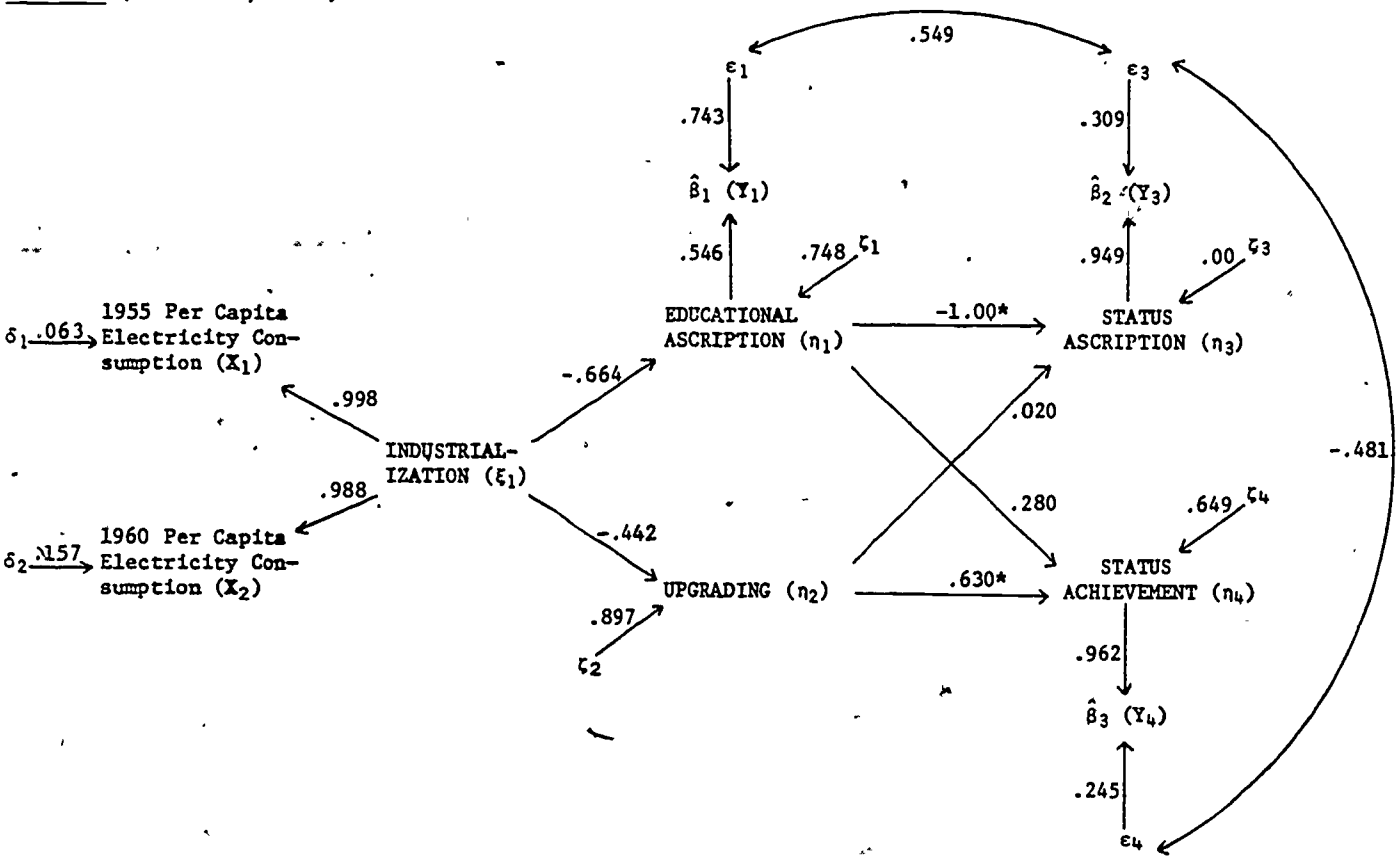


FIGURE 2
EFFECTS OF INDUSTRIALIZATION ON
REGIONAL STATUS ATTAINMENT[a]

MODEL I (L^2 = 3.20, 5 df)



MODEL II (L^2 = 4.83, 8 df)



*Structural coefficients significant at the .10 level (two-tailed) are starred.

[a]Standardized coefficients

APPENDIX 1
CORRELATION COEFFICIENTS, MEANS, AND STANDARD DEVIATIONS FOR SEVEN STATUS VARIABLES, BY REGION

I Hokkaido (N = 79)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							6.34	3.33
X2	.534	1.00						7.51	2.89
X3	.263	.115	1.00					2.62	0.90
X4	.486	.434	.202	1.00				0.66	0.48
X5	.323	.339	.271	.481	1.00			45.4	10.5
X6	.523	.469	.380	.431	.153	1.00		10.6	2.75
X7	.241	.059	-.031	.421	.220	.208	1.00	45.1	12.4

II Tohoku (N = 194)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.01	2.88
X2	.644	1.00						7.65	3.13
X3	.222	.230	1.00					2.66	0.71
X4	.276	.196	.033	1.00				0.40	0.49
X5	.308	.309	.073	.319	1.00			41.6	8.66
X6	.462	.503	.303	.322	.269	1.00		10.3	2.48
X7	.110	.174	.050	.178	.140	.316	1.00	42.9	8.91

III Kanto-I (N = 302)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.84	2.58
X2	.668	1.00						8.66	3.16
X3	.228	.275	1.00					2.71	0.80
X4	.225	.250	.137	1.00				0.50	0.50
X5	.348	.358	.174	.424	1.00			43.9	9.25
X6	.461	.515	.331	.332	.326	1.00		11.3	2.74
X7	.185	.253	.172	.213	.263	.502	1.00	44.8	9.31

IV Kanto-II (N = 305)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.89	2.86
X2	.680	1.00						8.63	3.42
X3	.351	.294	1.00					2.78	0.77
X4	.315	.288	.166	1.00				0.73	0.44
X5	.311	.350	.295	.331	1.00			45.6	10.8
X6	.415	.521	.284	.284	.415	1.00		11.9	2.81
X7	.238	.347	.234	.154	.244	.401	1.00	46.3	11.1

APPENDIX 1 (cont.)

V Hokuriku (N = 114)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.08	2.19
X2	.572	1.00						7.91	2.34
X3	-.054	.071	1.00					2.86	0.73
X4	.207	.164	.014	1.00				0.47	0.50
X5	.285	.335	.129	.270	1.00			41.6	7.08
X6	.260	.260	.072	.230	.322	1.00		10.6	2.16
X7	.146	.247	.191	.313	.175	.300	1.00	42.6	8.37

VI Tosan (N = 91)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.44	2.31
X2	.651	1.00						7.76	2.17
X3	.117	.059	1.00					2.69	0.80
X4	.190	.189	.285	1.00				0.35	0.48
X5	.173	.225	.201	.459	1.00			41.9	8.05
X6	.394	.382	.402	.362	.339	1.00		10.2	2.38
X7	.180	.094	.183	.247	.264	.323	1.00	44.3	9.30

VII Tokai (N = 237)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.53	2.72
X2	.725	1.00						7.90	3.12
X3	.175	.145	1.00					2.78	0.69
X4	.310	.342	-.081	1.00				0.53	0.50
X5	.301	.283	.160	.349	1.00			42.2	8.64
X6	.541	.527	.249	.403	.337	1.00		10.9	2.50
X7	.301	.316	.197	.241	.412	.441	1.00	43.4	9.72

VIII Kinki (N = 329)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.98	2.92
X2	.714	1.00						8.34	3.12
X3	.207	.231	1.00					2.80	0.74
X4	.365	.338	.149	1.00				0.64	0.48
X5	.345	.323	.215	.352	1.00			43.8	9.18
X6	.520	.521	.324	.366	.372	1.00		11.7	2.95
X7	.199	.195	.208	.244	.308	.399	1.00	46.9	12.0

APPENDIX 1 (cont.)

IX Chugoku (N = 155)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.45	3.07
X2	.673	1.00						7.86	3.14
X3	.183	.181	1.00					2.77	0.69
X4	.267	.282	.068	1.00				0.50	0.50
X5	.381	.413	.292	.318	1.00			42.9	10.3
X6	.482	.560	.309	.199	.439	1.00		11.3	2.53
X7	.118	.158	.170	.051	.268	.313	1.00	45.2	11.2

X Shikoku (N = 54)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							6.70	3.03
X2	.669	1.00						7.52	3.34
X3	.242	.354	1.00					2.87	0.62
X4	.230	.208	.107	1.00				0.39	0.49
X5	.424	.518	.149	.644	1.00			43.0	9.83
X6	.513	.407	.352	.397	.486	1.00		10.6	2.25
X7	.288	.223	.177	.319	.500	.367	1.00	43.5	8.77

XI Kyushu-I (N = 104)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.74	3.19
X2	.677	1.00						8.30	3.50
X3	.174	.152	1.00					2.74	0.78
X4	.361	.304	.224	1.00				0.56	0.50
X5	.313	.359	.121	.358	1.00			44.3	12.7
X6	.419	.338	.253	.478	.319	1.00		11.4	2.58
X7	.228	.127	.133	.337	.381	.352	1.00	45.3	10.2

XII Kyushu-II (N = 113)

	X1	X2	X3	X4	X5	X6	X7	MEAN	SD
X1	1.00							7.27	3.03
X2	.693	1.00						8.16	3.21
X3	.393	.255	1.00					2.80	0.85
X4	.407	.233	.092	1.00				0.50	0.50
X5	.481	.423	.174	.413	1.00			43.2	9.95
X6	.482	.458	.188	.317	.466	1.00		10.6	2.63
X7	.330	.385	.129	.384	.412	.561	1.00	45.6	11.2

X1: Mother's Educational Attainment, X2: Father's Educational Attainment, X3: Family Economic Level, X4: Farm Origin, X5: Father's Occupational Prestige, X6: Respondent's Educational Attainment, X7: Respondent's Occupational Prestige

APPENDIX 2
COEFFICIENTS AND STANDARD ERRORS FOR REGIONAL STATUS ATTAINMENT MODELS

Status Attainment Coefficients

Region	Educational Ascription (β_1)		Status Ascription (β_2)		Status Achievement (β_3)	
	Model A	Model F	Model A	Model F	Model A	Model F
Tokai	.643	.618	1.057	1.005	1.035	1.047
	(.177)	(.083)	(.402)	(.299)	(.290)	(.289)
Kinki	.715	.666	.594	.544	1.301	1.307
	(.176)	(.084)	(.332)	(.286)	(.263)	(.263)
Chugoku	.609	.549	.324	.205	1.173	1.248
	(.239)	(.083)	(.437)	(.385)	(.437)	(.426)
Shikoku	.796	.468	2.188	.895	.311	.734
	(.359)	(.099)	(1.184)	(.478)	(.599)	(.602)
Kyushu-I	.346	.441	.807	.714	.661	.949
	(.243)	(.085)	(.614)	(.362)	(.423)	(.422)
Kyushu-II	.071	.481	.151	.847	1.711	1.863
	(.234)	(.085)	(.499)	(.351)	(.389)	(.388)
Hokkaido	.798	.543	.778	.757	.516	.471
	(.273)	(.102)	(.839)	(.574)	(.664)	(.609)
Tohoku	.656	.567	.090	.093	1.083	1.075
	(.208)	(.082)	(.336)	(.291)	(.306)	(.304)
Kanto-I	.614	.599	.051	.126	1.677	1.632
	(.165)	(.077)	(.217)	(.212)	(.212)	(.211)
Kanto-II	.378	.549	.568	.773	1.065	1.123
	(.176)	(.072)	(.306)	(.251)	(.252)	(.249)
Hokuriku	.315	.394	1.056	1.234	.696	.731
	(.203)	(.101)	(.703)	(.401)	(.356)	(.358)
Tosan	.866	.646	.970	.690	.855	.882
	(.258)	(.111)	(.739)	(.525)	(.483)	(.480)

Entries are metric coefficient, (standard error).